

## Chapter 2

### WHAT IS TO BE THE TAX BASE?

#### INTRODUCTION

The dominant complaint made about the present tax system is that it does not tax all income alike. This complaint reflects concern about equity: taxpayers with the same level of income bear different tax burdens. It reflects concern about efficiency: taxation at rates that differ by industry or by type of financial arrangement leads to misallocation of resources. Finally, it reflects concern about simplicity: the enormously complex tangle of provisions the taxpayer confronts in ordering his affairs and calculating his tax leads to differential rates of taxation.

The usual approach to the complaint that all income is not taxed alike is to attempt to make income as defined by tax law correspond more closely to the "real thing." The problem with this approach is the difficulty of identifying the "real thing." As with other abstractions, there are numerous ways to look at the concept of "income," some of which may be better or worse according to context.

Laymen find it hard to believe that there are major problems in defining income. They are used to thinking in terms of cash wages and salaries, which are easily identified and clearly income. In fact, wages and salaries account for the great bulk of income -- however defined -- in the U.S. economy; other items like interest and dividends are also easily identified. So it may be fairly said that most of the dollars identified as income in the total economy will be the same under any definition of income.

But as one approaches the edges of the concept of income, there is a substantial grey area. It is small compared with the bulk of income, but this grey area (capital gains, for example) is the focus of much controversy. There is an extensive literature on the subject, beginning before the turn of the century and continuing to the present, with no consensus except that particular definitions may be more practical in certain circumstances than in others.

Many of the major problems in defining income concern expectations or rights with respect to the receipt of payments in the future -- does an individual have income when the expectation or right arises, or only when the money comes in? Is the promise to pay a pension to be counted as income when made, although the amounts will be paid 20 years hence? Is a contract to earn \$60,000 a year for the next 5 years to be discounted and counted as income in the year the contract is made? Is the appreciation in the market value of an outstanding bond resulting from a decline in the general market rate of interest to be counted as income now, even though that appreciation will disappear if interest rates rise in the future? Is the increase in the present value of a share in a business attributable to favorable prospects of the business earning more in future years to be counted as income now or in the future years when the earnings actually materialize?

Differences in view with respect to the definition of income cut across political philosophies. Although many "liberal" economists argue for an expansive definition of income, the extreme view that income cannot be defined adequately to constitute a satisfactory tax base has been advanced by the eminent British Socialist economist, Nicholas Kaldor, who argues for a consumption tax. At another extreme, one of the most all-inclusive definitions of income was formulated by Professor Henry Simons, a conservative economist long affiliated with the University of Chicago.

Professor Simons' definition -- usually referred to as the "Haig-Simons definition" or the "accretion" concept of income -- is perhaps most commonly used in discussions about income taxes. Professor Simons himself was careful to say that the definition was not suitable for all purposes and would not, without modification, describe a satisfactory tax base. Most analysts would agree. However, the definition is useful for analytical purposes. It represents a kind of "outer limit" that helps identify items that are potential candidates for inclusion or exclusion in any income tax base. In the discussions that follow, it should be understood that the Haig-Simons or "accretion" definition is used and discussed in that way, and that no blanket endorsement of that definition of income is intended.

Indeed, the accretion concept of income has many shortcomings as a tax base. Several of them are serious, and attempts to deal with them account for much complexity

in the present tax code. Among these shortcomings are severe measurement problems. Many items that are required for the calculation of net income must be imputed -- either guessed at or determined by applying relatively arbitrary rules (as in the case of depreciation). Because such rules are never perfect, they are the subject of continual controversy. A particular problem with certain current rules is their inability to measure income correctly in periods of inflation.

An especially serious drawback of an accretion income base is that it leads to what is sometimes called the "double taxation" of savings: savings are accumulated after payment of taxes and the yield earned on those savings is then taxed again. This has been recognized as a problem in the existing tax law, and many techniques have been introduced to make the tax system more neutral with respect to savings. The investment tax credit, accelerated depreciation, special tax rates for capital gains, and other provisions are examples. Also, tax deferral on income from certain investments for retirement purposes is an example of how current law attempts to offset the adverse effects on savings of using an accretion income base. Significantly, this last example is also viewed as desirable for reasons of equity.

All these techniques have the same practical effect as exempting from tax the income from the investment. To this extent, this is equivalent to converting the base from accretion income to consumption.

The present tax system thus may be regarded as having a mixture of consumption and accretion income bases. In view of this, a question that arises is whether the proper objective of tax reform should be to move more explicitly toward a consumption base rather than toward a purer accretion base. The issue is considered in this chapter.

The analysis suggests that the consumption tax has many important advantages as compared with an income tax and accordingly should be seriously considered in designing a reformed tax system. In some respects, a broad-based consumption tax is more equitable than a broad-based income tax. It is also easier to design and implement and has fewer harmful disincentive effects on private economic activity. In many important ways, a broad-based consumption tax more closely approximates the current tax system than does a broad-based income tax and would constitute less of a change.

The remainder of this chapter compares consumption and income taxes with respect to various criteria. The chapter includes:

- A discussion of some general issues relating to equity;
- An explanation of the concepts of consumption and income, including a discussion of some definitional problems;
- A comparison of the treatment of personal savings under the current tax system with the treatment of savings under a consumption tax and a broad-based income tax;
- A discussion of the merits of the alternative tax bases on criteria of equity;
- A comparison of the alternative tax bases for simplicity; and
- A discussion of the economic efficiency effects of tax policies and a comparison of the efficiency losses under a consumption tax and an income tax.

#### TWO PRELIMINARY MATTERS OF EQUITY

As has already been suggested, the specification of a tax code has the effect of defining the conditions under which two taxpayers are regarded as having the same circumstances, so that they should properly bear the same tax burden. This section considers two aspects of such a comparison that have important implications for tax design: first, over what period of time are the circumstances of two taxpayers to be compared; and, second, what are the units -- individuals or families -- between which comparisons are to be drawn.

##### Equity Over What Time Period?

Most tax systems make liabilities to remit payments depend upon events during a relatively short accounting period. In many cases, this is a matter of practical necessity rather than principle. That is, tax liabilities must be calculated periodically on the basis of current information. Generally, there is nothing sacred about the

accounting period -- be it a week, a month, or a year -- as far as defining the period over which taxpayer circumstances are to be compared. Indeed, it is usually regarded as regrettable that practical procedures do not allow the calculation of liabilities to take a much longer view. Averaging and carryover provisions represent (inadequate) attempts to resolve inequities that arise in this respect.

An example from another program will illustrate. Under many welfare programs the accounting period is 1 month. A family earning just at the eligibility level at an even rate for the year will receive nothing. A family earning the same amount during the year, but earning it all during the first 3 months will appear to have no earnings during the remaining 9 months. That family will then be eligible for full benefits for 9 months, in spite of being no worse off than the first family in the perspective of a year's experience.

It is assumed in this study that the period over which such comparisons are made should be as long as possible. Ideally, two taxpayers should be compared on the basis of a whole lifetime of circumstances, and this is taken here to be a general goal of tax system design: lifetime tax burden should depend upon lifetime circumstances.

It is important to note that lifetime tax burden depends not only on the sum of all tax liabilities over a taxpaying unit's lifetime, but also on their timing. Deferral of a portion of tax liability is a form of reduction in tax burden in an income tax framework because interest can be earned on the deferred tax payments. For example, if investors can expect a 10-percent annual rate of return on riskless assets, a tax liability of \$110 a year from now is equivalent to a tax liability of \$100 today because \$100, if untaxed and invested, will grow to \$110 in value in one year's time. A common way of expressing this is to say that the present value of a tax liability of \$110 one year in the future is \$100. When comparing the lifetime tax burdens of two taxpayers, we are, in fact, comparing the present value of the sum of current and future tax liabilities viewed from the vantage of some point early in the life of the two taxpayers (e.g., at birth, or at the beginning of working years, or at age 18).

#### Is the Family or the Individual the Appropriate Unit?

What taxpaying unit is the subject of this comparison of situations? When it is asked whether one taxpayer is in

the same situation as another, is the taxpayer an individual or a family? The sharing of both consumption and wealth within families supports continuation of present law in regarding the family as the unit of comparison.

On the other hand, a family is not a simple institution, with a predictable lifetime, and a constant identity. Quite apart from the problem of distinguishing varying degrees of formality in family structure (e.g., is the second cousin living in the guest room part of the family?), the family necessarily is a changing unit, with births, deaths, marriages, and divorces continually altering family composition.

In this study, differences in family association have been regarded as relevant to that comparison of lifetime situation by which relative tax burdens are to be assigned to different individuals. The practical consequence of this will be that the tax liability of a father, for example, will depend in part upon consideration of the situation of the whole family.

#### INCOME AND CONSUMPTION

A tax base is not a quantity like water in a closed hydraulic system, wherein the total remains constant regardless of how it is directed by valves and pumps. Rather, it is an aggregation of transactions -- sometimes implicit but usually voluntary. The transactions that take place will depend in part upon how they are treated by the tax system. The choice of a tax base is a choice about how to tax certain transactions.

A tax base is necessarily defined by a set of accounting rules that classifies actual and implicit transactions as falling within or outside the "tax base," that is the total to which a tax schedule is applied to determine the taxpayer's liability. The Internal Revenue Code prescribes an "income" tax, with "income" defined by the elaborate body of statutory and administrative tax law that has evolved. But this definition is criticized by many observers, who believe that tax burdens should be related to a broader tax base, i.e., to a wider set of transactions.

As was pointed out above, the concept of income generally used in discussion of tax reform has been called an "accretion" concept. It is supposed to measure the command over resources

acquired by the taxpayer during the accounting period, that command having been either exercised in the form of consumption or held as potential for future consumption in the form of an addition to the taxpayer's wealth. Hence, the apparently paradoxical practice of defining "income" by an "outlay" or "uses" concept -- consumption plus change in net worth.

Everyday usage on the other hand tends to associate income with the sources side of the accounts. Thus, one speaks of income "from labor," such as wages, or income "from capital," or "from proprietorships," such as interest and profits. Because sources and uses must be equal in a double entry accounting system, the result should be the same whichever side is taken for purposes of measurement, provided that all uses are regarded as appropriate for inclusion in the tax base.

#### Definitions of Income and Consumption

In this section, a rudimentary classification of transactions is developed to define income and consumption. The accounts considered first are those of a wage earner whose only sources of funds are his wages and his accumulated balance in a savings account.

In the simplest case, the possible applications he can make of these funds may be divided into the purchase of goods and services for his immediate use and additions to or subtractions from his accumulation of savings. Thus, an account of his situation for the year might be the following:

<u>SOURCES</u>	<u>USES</u>
Wages	Rent
Interest	Clothing
Balance in	Food
savings	Recreation
account at	Balance in
beginning of	savings account
period	at end of
	period

The two sides of this account are, of course, required to balance. Of the uses, the first four are generally lumped

under the concept of consumption, the last constituting the net worth of the household. Thus, the accounts may be schematically written as:

SOURCES	USES
Wages	Consumption
Interest	
Net worth at beginning of period	Net worth at end of period

The concept of income concerns the additions or accretions to source and the application of that accretion during the accounting period. This can be found simply by subtracting the accumulated savings (net worth) at the beginning of the period from both sides, to give:

ADDITION TO SOURCES	USES OF ADDITION TO SOURCES
Wages	Consumption
Interest	Savings (equals increase in net worth over the period)

Income is defined here as be the sum of consumption and increase in net worth. Note carefully that a uses definition is adopted as a measure of differences in individual circumstances. This approach to the concept of income has substantial advantages as a device for organizing thinking on particular policy issues, even though it will no doubt be unfamiliar to many readers, who naturally think of income as something that "flows in" rather than as something that is used. With this uses definition of income, the situation of the illustrative individual may be represented by:

ADDITION TO SOURCES	USES OF ADDITION TO SOURCES
Wages Interest	Income

The last version of the accounts makes clear the way in which information about sources is used to determine the individual's income. To calculate his income for the year, this individual obviously would not add up his outlays for rent, clothing, food, recreation, and increase in savings account balance. Rather, he would simply add together his wages and interest and take advantage of the accounting identity between this sum and income.

This classification of uses into consumption and increase in net worth is not sufficient, however, to accommodate distinctions commonly made by tax policy. It will be helpful, therefore, to refine the accounts to the following:

ADDITION TO SOURCES	USE OF ADDITION TO SOURCES
Wages Interest	Consumption Cost of earnings Certain other outlays Increase in net worth

An individual's outlay for special work clothes needed for his profession requires the category "cost of earnings." These are netted out in defining income. Note that the decision about which outlays to include in this category is a social or political one. Thus, in present law, outlays for specialized work clothes are deductible, but commuting expenses are not. There is no independent standard to which one can appeal to determine whether such outlays are consumption, and hence a part of income, or work expenses, and hence out of income.

Similarly, a judgment may be made that some outlays, while not costs of earning a living, are also not properly classified as consumption. The category of "other outlays" is introduced for want of a better label for such transactions. For example, in everyday usage, State income taxes would not be an application of funds appropriately labeled "personal consumption," much less "increase in net worth." (They might be allocated to the "cost of earnings" category.) Thus, using the definition of income as the sum of consumption and the increase in net worth, we now have:

ADDITION TO SOURCES	USES OF ADDITION TO SOURCES
Earnings (Wages + Interest)	Income (Consumption + Increase in net worth) Cost of earnings Certain other outlays

Again, to calculate income it is generally convenient to work from the left-hand, sources side of the accounting relationship described above. In this case,

$$\begin{array}{l} \text{Income} \\ \\ \\ \end{array} = \begin{array}{l} \text{Earnings} \\ \text{minus} \\ \text{Cost of earnings} \\ \text{minus} \\ \text{Certain other outlays.} \end{array}$$

Similarly, and of great importance in understanding this study, consumption may be calculated by starting with sources data:

$$\begin{array}{l} \text{Consumption} \\ \\ \\ \end{array} = \begin{array}{l} \text{Earnings} \\ \text{minus} \\ \text{Cost of earnings} \\ \text{minus} \\ \text{Certain other outlays} \\ \text{minus} \\ \text{Increase in net worth.} \end{array}$$



$$\begin{aligned} \text{"Ability-to-pay" consumption} &= \text{Earnings} \\ &\quad \text{minus} \\ &\quad \text{Cost of earnings} \\ &\quad \text{minus} \\ &\quad \text{Certain other outlays} \\ &\quad \text{minus} \\ &\quad \text{Increase in net worth.} \end{aligned}$$

The difference between consumption and income is the savings or increase in net worth over the period. Thus, equivalently:

$$\begin{aligned} \text{"Ability-to-pay" consumption} &= \text{"Ability-to-pay" income} \\ &\quad \text{minus} \\ &\quad \text{Increase in net worth.} \end{aligned}$$

Finally, there is the pair of income and consumption concepts that excludes gifts and bequests given from the category of uses by which tax burdens are to be apportioned. These are given the label "standard-of-living" because they are confined to outlays for the taxpayer's direct benefit. As with the term "ability-to-pay," this label is intended to be suggestive only. The "ability-to-pay" and "standard-of-living" concepts are related as follows:

$$\begin{aligned} \text{"Standard-of-living" income} &= \text{"Ability-to-pay" income} \\ &\quad \text{minus} \\ &\quad \text{Gifts and bequests given,} \\ \text{"Standard-of-living" consumption} &= \text{"Standard-of-living" income} \\ &\quad \text{minus} \\ &\quad \text{Increase in net worth.} \end{aligned}$$

This discussion leads to a four-way classification of tax bases:

		Gifts Given	
		Included	Excluded
Increase in net worth	In- cluded	Ability-to-pay income	Standard-of-living income
	Ex- cluded	Ability-to-pay consumption	Standard-of-living consumption

THE PRESENT TAX BASE

Is the Present Base Consumption or Income?

While the present income tax system does not reflect any consistent definition of the tax base, it has surprisingly many features of a "standard-of-living" consumption base.

The idea of consumption as a tax base sounds strange and even radical to many people. Nonetheless there are many similarities between a consumption base tax and the current tax system. Adoption of a broad-based consumption tax might actually result in less of a departure from current tax treatment of savings than adoption of a broad-based income tax.

The current tax system exempts many forms of savings from tax. In particular, the two items that account for the bulk of savings for most Americans, pensions and home ownership, are treated by the present tax code in a way that is more similar to the consumption model than to the comprehensive income model.

Retirement savings financed by employer contributions to pension plans (or made via a "Keogh" or "Individual Retirement Account" (IRA)) are currently treated as they would be under a consumption tax. Under the current system, savings in employer-funded pension plans are not included in the tax base, but retirement benefits from those plans,

which are available for consumption in retirement years, are included. Employee contributions to pension plans are treated somewhat less liberally. The original contribution is included in the tax base when made, but the portion of retirement income representing interest earnings on the original contributions is not taxed until these earnings are received as retirement payments. If the tax on those interest earnings were paid as the earnings accrued, treatment of employee contributions to pension plans would be the same as that under a comprehensive income tax. However, the tax on interest earnings in pension funds is lower than under a comprehensive income base because the tax is deferred. If no tax were paid on the interest earnings portion of retirement pay, then the present value of tax liability would be exactly the same as the present value of tax liability under a consumption tax. Thus, the current treatment of employee contributions incorporates elements of both the comprehensive income model and the consumption model but, because of the quantitative importance of tax deferral on pension fund earnings, the treatment is closer to the consumption model.

The current tax treatment of home ownership is very similar to the tax treatment of home ownership under a consumption tax. Under present law, a home is purchased out of tax-paid income (is not deductible), and the value of the use of the home is not taxed as current income. Under a consumption tax, two alternative treatments are possible. Either the initial purchase price of the house would be included in the tax base (i.e., not deductible in calculating the tax base) and the flow of returns in the form of housing services would be ignored for tax purposes, or the initial purchase price would be deductible and an imputation would be made for the value of the flow of returns, which would be included in the tax base.

In equilibrium, the market value of any asset is equal to the net present value of the flow of future returns, either in the form of monetary profits or value of consumption services. For example, the market value of a house should equal the present value of all future rental services (the gross rent that would have to be paid to a landlord for equivalent housing) minus the present value of future operating costs (including depreciation, operating costs, property taxes, repairs, etc.). Thus, in both cases, the present value of the tax base would be the same. For example, if an individual purchased a \$40,000 house, the

present value of his future tax base for that item of consumption would be \$40,000 regardless of how he chose to be taxed. Because the initial purchase price is easier to observe than the imputed service flow, it would be most practical, under a consumption tax, to include the purchase of a house in the tax base and exclude net imputed returns. In that case, capital gains from sale of a house would not be taxable.

In the current tax system, as in the consumption tax system, the down payment and principal payments for an owner-occupied residence are included in the tax base, and the imputed net rental income in the form of housing services is excluded from tax. Capital gains from housing sales are taxable at preferential capital gains rates upon realization (which allows considerable tax deferral if the house is held for a long period), and no capital gains tax is levied if the seller is over 65 or if the gain is used to purchase another house.

In contrast, under a comprehensive income base, the entire return on the investment in housing, received in the form of net value of housing services, would be subject to tax and, in addition, the purchase price would not be deductible from the tax base.

Many special provisions of the tax law approximate a consumption tax in the lifetime tax treatment of savings. For example, allowing immediate deduction for tax purposes of the purchase price of an item that will be used up over a period of years (i.e., immediate expensing of capital investments) is equivalent to consumption tax treatment of investment income because it allows the full deduction of savings; thus, accelerated depreciation approximates the consumption tax approach. While depreciation provisions under the present law are haphazard, a consumption base tax would allow the immediate deduction of saving to all savers.

In conclusion, taxation of a significant portion of savings under the current system more closely resembles the consumption model than the comprehensive income model. For owner-occupied housing, a large fraction of pension plans, and some other investments, the tax base closely approximates either the present value of imputed consumption benefits or the present value of consumption financed by proceeds of the investment.

Is the Tax System Presently on an "Ability-to-Pay" or a "Standard-of-Living" Basis?

Three possibilities may be considered for the income tax treatment of a gift from one taxpaying unit to another: (1) the gift might be deducted from uses in calculating the tax base of the donor and included in sources in calculating the base of the donee; (2) it might be left in the base of the donor and also included in the base of the donee; or (3) it might be left in the base of the donor but excluded from the base of the donee.

The first of these treatments is that implied by a "standard-of-living" basis for determining relative tax burdens. The second treatment expresses an "ability-to-pay" view. The third treatment is that of the present income tax (excluding the estate and gift tax) law, at least with respect to property, with no unrealized appreciation at the time the gift is made.

The first and third treatments are similar in that there is no separate tax on the transfer of wealth from one taxpaying unit to another. The tax burdens under those two options may differ with a progressive tax structure, however. Under the third treatment, aggregate tax liability is unaffected by the gift, but under the first, it will rise or fall depending on whether or not the marginal tax bracket of the donee is higher than the marginal tax bracket of the donor. Under the second treatment, with the gift or bequest in the tax base of both the donor and the donee, the consumption or change in net worth financed by the gift is, in effect, taxed twice. It is taxed as consumption by the donor, and then taxed again as consumption or an increase in net worth of the donee.

To illustrate the alternative treatments of wealth transfers, consider the case of taxpayers A and B, who start life with no wealth and who are alike except that A decides to accumulate an estate. Their sons, A' and B', respectively, consume their available resources and die with zero wealth. Thus, A has lower consumption than B; A' (who consumed what his father saved) has higher consumption than B'. Under a "standard-of-living" approach, the pair A-A' should bear roughly the same tax burden as the pair B-B'. This is so because the higher consumption of A' is simply that which his father, A, did not consume. Under an "ability-to-pay" approach, the combination A-A' should bear more tax than B-B'. A and B have the same ability to pay,

but because A chooses to exercise his ability to pay by making a gift to his son, A' has a greater ability to pay than B', by virtue of the gift received.

Neglecting the effect of progressivity, present income tax law taxes the combination A-A' the same as it does the combination B-B' (whether or not A and A' are related). In this respect, present income tax law incorporates a "standard-of-living" basis. The way this is accomplished, however, is "backward." That is, instead of taxing A on his "standard-of-living" income and then taxing A' on his "standard-of-living" income, present law taxes A on his consumption plus increase in net worth plus the gift given (i.e., the gift is not deductible in calculating the income tax due from A), while A' is taxed on the value of his consumption plus increase in net worth minus the value of the gift received (i.e., the receipt of the gift is not included in calculating the tax due from A').

This procedure clearly mismeasures the income of A. It mismeasures the income of A', as well, if a "standard-of-living" concept of income is used. The income of A' is understated (gift received is not included) and that of A is overstated (gift given is not excluded). However (continuing to neglect the effect of progressivity), the impact of the tax system on A and A' is the same as if the treatment were the other way around, at least as far as intentional gifts are concerned. Suppose, for example, that A wants to enable A' to have an extra \$750 worth of consumption. Under present law, A simply gives A' \$750 cash and A' consumes it. Under a "standard-of-living" concept of income (assuming A and A' are both in the 25-percent rate bracket), A would give A' \$1,000. After paying taxes of \$250, A' would have \$750 to consume. At the same time, A would deduct \$1,000 from his tax base, saving \$250 and making the net cost of his gift \$750.

Although the effects of progressivity would alter this somewhat, it is not clear that the differences in rates between giver and receiver would be likely to be large if a lifetime view were taken. Naturally, under present law, an adult donor will tend to have a higher marginal rate of income tax than a child donee. It is for this reason that present income tax law treatment of gift and bequest transactions may come closer than the more intuitively obvious one -- excluding to donor, including to donee -- to measuring

"standard-of-living" income correctly. Certain administrative aspects also favor the present treatment of gifts and bequests for income tax purposes.

In summary, whether by accident or design, present income tax law incorporates a rough sort of "standard-of-living" view of the concept of income because it does not include an extra tax on wealth transfers as an integral part of the income tax. Such treatment approximates a provision where a gift given is included in the income of the donee and excluded from the income of the donor, even though the mechanics of calculating the tax are on the opposite basis.

It is, then, mainly the estate and gift tax that introduces the "ability-to-pay" element into the tax system, because it results in a gift or bequest being taxed twice to the donor, once under the income tax and again under the transfer tax. The value implicitly expressed is that taxes should generally be assessed on a "standard-of-living" basis, except in the case of individuals whose ability to pay is very large, and whose standard of living is low relative to ability to pay (i.e., those who refrain from consuming in order to make gifts and bequests).

#### ALTERNATIVE BASES: EQUITY CONSIDERATIONS

The previous section considered what tax base is implicit in present law. In a sense, the answer itself is an equity judgment, because equity traditionally has played an important role in the tax legislation process. This section considers the relative equity claims of a "consumption" as compared with an "income" basis, of either "ability-to-pay" or "standard-of-living" type, and the "ability-to-pay" or "standard-of-living" version of either consumption or income.

#### Consumption or Income: Which is the Better Base?

Involved in the choice between consumption and income as the basis for assessing tax burdens is more than a simple subjective judgment as to whether, of two individuals having different incomes in a given period but who are identical in all respects in all other periods, the one with the higher income should pay the higher tax. Examples of tax burdens considered within a life-cycle framework suggest that a consumption base deserves careful attention if the primary consideration is fairness, whether one takes an ability-to-pay or a standard-of-living view.

Many observers consider income and consumption to be simply alternative reasonable ways to measure well-being; often, income is regarded as somewhat superior because it is a better measure of ability to pay. However, in a life-cycle context, income and consumption are not independent of each other. Of two individuals with equal earning abilities at the beginning of their lives, the one with higher consumption early in life is the one who will have a lower lifetime income. This is true because saving is not only a way of using wealth, but also a way of producing income. Thus, the person who saves early in life will have a higher lifetime income in present-value terms. Although his initial endowment of financial wealth and of future earning power is independent of the way he chooses to use it, his lifetime income is not independent of his consumption/savings decisions.

The examples presented below show that a consumption base would be more likely to maintain the same relative rankings of individuals ranked by endowment than an income base, if "endowment" is defined as an individual's wealth, in marketable and nonmarketable forms, at the beginning of his working years. Wealth so defined consists of the total monetary value of financial and physical assets on hand, the present value of future labor earnings and transfers, less the cost of earning income and less the present value of the "certain other outlays" discussed in the accounting framework above. If endowment is regarded as a good measure of ability to pay over a lifetime, this implies that a consumption base is superior to an income base as a measure of lifetime ability to pay.

If individuals consume all of their initial endowment during their lifetime (that is, leave no bequest), a consumption tax is exactly equivalent to an initial endowment tax. However, an income tax treats individuals with the same endowment differently, if they have either a different pattern of consumption over their lifetime or a different pattern of earnings.

Consider first two individuals with no initial financial or physical wealth, no bequest, the same pattern of labor earnings, and different patterns of consumption. Intuition suggests that, unless these individuals differ in some respect other than how they choose to use their available resources (e.g., with respect to medical expenses or family status), they should bear the same tax burden, measured by the present value of lifetime taxes. The tax system should

not bear more heavily on the individual who chooses to purchase better food than on the one who chooses to buy higher quality clothing. Nor should it bear more heavily on the individual who chooses to apply his endowment of labor abilities to purchase of consumption late in life (by saving early in life) than it does on the one who consumes early in life.

While an income tax does not discriminate between the two taxpayers in the case where the two taxpayers consume different commodities, it does in the case where they choose to consume in different time periods in their lives. An income tax imposes a heavier burden on the individual who prefers to save for later consumption than on the one who consumes early, and the amount of difference may be significant. The reason is the double taxation of savings under an income tax. The "use" of funds for savings is taxed, and then the yield from savings is taxed again. The result is that the individual who chooses to save early for later consumption is taxed more heavily than one who consumes early.

The tax burden may be reduced most by borrowing for early consumption, since the interest cost is deducted in calculating income.

Now, suppose that the two individuals have different time paths of labor earnings but that the two paths have the same present discounted value. For example, individual A may earn \$10,000 per year in a given 2-year period, while individual B works for twice as many hours and earns \$19,524 in the first of the 2 years, but earns nothing in the second. (The figure of \$19,524 is the total of \$10,000 plus the amount that would have to be invested at a 5-percent rate of return to make \$10,000 available one year later.) Each individual prefers to consume the same amount in both periods, and in the absence of tax, each would consume the same amount, \$10,000 per year. Intuition suggests these two individuals should bear the same tax burden. However, under an income tax (even at a flat rate, i.e., not progressive), they would pay different taxes, with B paying more than A. The reason, again, is the double taxation of B's savings. The differences may be very large if a long time period is involved. An income tax imposes a higher burden on the individual who receives labor income earlier even though both have the same initial endowments in present-value terms and the same consumption paths.

"Standard-of-Living" or "Ability-to-Pay": Which Criterion?

Although for the vast majority of individuals bequests and gifts of cash and valuable property constitute a negligible portion of sources and an equally negligible portion of uses of funds, the tax treatment of these transactions will have significant consequences for a minority of wealthy individuals and, therefore, for the perceived fairness of the tax system.

The equity judgment embodied in present law is that large transfers should be subject to a substantial progressive tax under the estate and gift tax laws and that relatively small transfers need not be taxed. For income tax purposes, amounts given are taxed to the donor and are not taxed to the donee. This has general appeal. The usual reaction to the idea that gifts given should also be included in the tax base of the donee is that this would be an unfair double taxation.

As has been pointed out, the circumstances under which large transfers occur are relatively large wealth and low consumption of donor. The imposition of a substantial transfer tax (estate and gift tax) is consistent with a common argument for this tax; namely, that it is desirable to prevent extreme accumulations of wealth. If this is, indeed, the equity objective, it suggests that the code's present allowance of relatively large exemptions and imposition of high rates on very large transfers is sensible.

Summing Up: The Equity Comparison of Consumption and Income Bases

As a general matter, the important conclusions to be drawn from the foregoing discussion are:

- **Either an income or a consumption tax may be designed to fulfill "ability-to-pay" or "standard-of-living" objectives. The difference is not between these two types of tax, but rather between a tax in which gifts given are considered part of the tax base of either donor or donee or, instead, part of the tax bases of both donor and donee. In the latter case, the tax embodies an "ability-to-pay" approach; in the former, the tax follows from a "standard-of-living" approach. The present income tax system expresses a "standard-of-living" basis of comparison, while the present estate and gift tax system combines with income tax to give an "ability-to-pay" approach in certain cases.**

- The difference between a consumption base and an income base of either the "standard-of-living" or the "ability-to-pay" type is between one that depends upon the timing of consumption and earnings (and gifts, in the case of an "ability-to-pay" tax) during an individual's lifetime and one that does not. The income tax discriminates against people who earn early in life or prefer to consume late in life. That is, if a tax must raise a given amount of revenue, the income tax makes early earners and late consumers worse off than late earners and early consumers. A consumption tax is neutral between these two patterns.
- A consumption tax amounts to a tax on lifetime endowment. It may be viewed as an ideal wealth tax, that is, a tax that makes an assessment on lifetime wealth. An income tax will tend to assess tax burdens in a way presumably correlated with lifetime wealth, but because it depends upon matters of timing, the correspondence is nowhere near as close as would be the case under a consumption base tax.
- As previously noted, present law introduces an "ability-to-pay" element into the tax system through the estate and gift provisions. The same device is equally compatible with either an income base or a consumption base tax. As will be discussed in chapter 4, in some respects an estate and gift tax system fits more logically with a consumption base system, which allows deduction of gifts by the donor and requires inclusion by the donee.

#### ALTERNATIVE TAX BASES: SIMPLICITY CONSIDERATIONS

Of central importance in determining the complexity of a tax system -- to the taxpayer in complying and to the tax collector in auditing compliance -- is the ease with which the required transaction information can be assembled and the objective nature of the data. Three desirable characteristics are readily identifiable:

- Transactions should be objectively observable -- as in the case of the transaction of a wage payment. Such transactions are called "cash" transactions in this report. "Imputed" transactions, i.e., values arrived at by guesses or rules of thumb -- as in the case of depreciation -- should be kept to a minimum.

- The period over which records need to be kept should be as short as practicable.
- The code should be understandable.

#### Consumption or Income Preferable on Grounds of Simplicity?

With respect to simplicity criteria, the consumption base has many advantages, as can be seen on examination of the accounting relationships. At this stage, both the concept of consumption and the concept of increase in net worth must be complicated by adding imputed elements to the simple example.

The portion of consumption calculable from cash transactions includes cash outlays for goods and services and transfers to others (optional, depending upon the choice between "standard-of-living" and "ability-to-pay" versions). In addition, an individual usually obtains directly the equivalent of certain consumption services that he could purchase in the marketplace. The most important of these are the services from durable goods, such as owner-occupied houses, and household-produced services, such as child care, recreation, etc.

The change in net worth over a given time period, the other component of income, is calculable in part by cash transactions. These include such items as net deposits in savings accounts. Imputed elements, however, are extensive and lead to some of the most irksome aspects of income tax law. Among these are the change in value of assets held over the period, including the reduction in value due to wear and tear, obsolescence, etc. (depreciation); increases in value of assets due to retained earnings in corporate shares held, changed expectations about the future, or changed valuation of the future (accruing capital gains); and accruing values of claims to the future (such as pension rights, and life insurance).

Thus, both consumption and the change in net worth can be expressed as the sum of items calculable from cash transactions within the accounting period and items that must be imputed. The cash items are easy to measure, but imputed items are a source of difficulty. Because the imputed consumption elements are needed for a comprehensive income or consumption base, consider first some of the more significant imputed elements of the change in net worth, representing necessary additions to complexity if an income base is used.

Four problems commonly encountered in measuring change in net worth are depreciation, inflation adjustment, treatment of corporate retained earnings, and treatment of unrealized capital gains on nonmarketed assets.

#### Measurement Problems

Depreciation. Depreciation rules are necessary under an income base to account for the change in value of productive assets due to wear and tear, obsolescence, and increases in maintenance and repair costs with age. Because productive assets often are not exchanged for long periods of time, imputations of their annual change in market value must be made.

Inevitably, depreciation rules for tax accounting, as in the present code, can only approximate the actual rate of decline in the value of capital assets. Because changes in depreciation rules can benefit identifiable taxpayers, such rules become the object of political pressure groups and are sometimes used as instruments of economic policy, causing the tax base to depart even further from a true accretion concept. Thus, accelerated depreciation, at rates much faster than economic depreciation, has been allowed in some industries as a deliberate subsidy (e.g., mineral industries, real estate, and some farming). To the extent that the relationship between tax depreciation and economic depreciation varies among industries and types of capital, returns to capital investment in different industries and on different types of equipment are taxed at different effective rates. Differences in the tax treatment of capital income among industries create distortions in the allocation of resources across products and services and in the use of different types of capital in production.

Unrealized depreciation of an asset is neither added to nor subtracted from the consumption base. Thus, the time path of depreciation imputed to assets does not affect the tax base of asset owners. Adoption of a consumption base tax would automatically eliminate current tax shelters that operate by allowing depreciation in excess of economic depreciation in some industries. Alternative tax subsidies to the same industries, if adopted, would have to be much more explicit and would be easier to measure. The accidental taxation of returns to capital in different industries at different rates that arises under the current system because of imperfect knowledge of true economic depreciation rates would not occur.

Inflation Adjustment. During a period of rapid inflation, the current income tax includes inflationary gains along with real gains in the tax base. For example, an individual who buys an asset for \$100 at the beginning of a year and sells it for \$110 one year later has not had any increase in the purchasing power of his assets if the inflation rate is also 10 percent. Yet, under the current system he would include at least part of any gain on the sale of the asset in the sources side of his tax calculation.

An ideal income base would have to adjust for losses on existing assets, including deposits in savings banks and checking accounts, resulting from inflation. Such adjustments would pose challenging administrative problems for assets held for long periods of time. The current tax system effects a rough compromise in its treatment of "long-term capital gains" by requiring that only half of such gains be included in taxable income and by allowing no inflation deduction. (However, this treatment has been substantially modified by the minimum tax and by denial of maximum tax benefits for "earned income" if the taxpayer also has capital gains.) Dividends and interest income are taxed at the same rate as labor income even though the underlying assets may be losing real value.

A second type of inflationary problem under the current tax system is that rising nominal incomes move taxpayers into higher marginal tax brackets, and thus increase the average tax rate even when real income is not growing. Inflation will automatically raise the average tax rate in any tax system with a graduated rate structure, whether based on income, consumption, or the current partial-income base. A possible solution is some type of indexing plan, such as automatic upward adjustment of exemption levels. Because this problem does not affect the relative distribution of the tax base among individuals, it is not an issue in choosing between a consumption and an income base.

Under a consumption tax, inflation would not lead to difficulties in measuring the relative tax base among individuals because consumption in any year would be measured automatically in current dollars. A decline in the value of assets in any year because of inflation would be neither a positive nor a negative entry in the consumption base.

Treatment of Corporate Income. Given the difficulty of taxing gains in asset values as they accrue, the present corporate income tax serves the practical function of preventing individuals from reducing their taxes by accumulating income within corporations. Naturally, this is but a rough approximation of the appropriate taxation of this income and the difficulty of identifying incidence and allocation effects of this tax is well known. Under a fully consistent income tax concept, as outlined below in chapter 3, "corporation income" would be attributed to individual stockholders. This integration of the corporation and personal income taxes is desirable for a progressive income tax system because the variation among individuals in marginal tax rates makes it impossible for a uniform tax on corporate income, combined with exclusion of dividends and capital gains, to assess all individual owners at the appropriate rate. Although feasible and desirable in an income tax system, full corporate integration is sometimes regarded as posing too many challenging administrative problems. A partial integration plan that allowed corporations to deduct dividend payments and/or allowed shareholders to "gross up" dividends by an amount reflecting the corporation income tax, taking a credit for the same amount in their individual income tax calculation, would eliminate the problem of "double taxation" of corporate dividends. This could be done without introducing significant complexity into the tax code, but the problem of how to treat corporate retained earnings would remain unresolved.

Treatment of corporate income under a consistent consumption tax is simpler than under a comprehensive income tax. The corporation profits tax as such would be eliminated. Individuals would normally include in their tax base all dividends received and the value of all sales of corporate shares, and they would deduct the value of all shares purchased. There would be no need to treat receipts from sales of shares differently than other sources or to attribute undistributed corporate profits to individual shareholders.

Treatment of Unrealized Asset Value Changes. The increase in net worth due to any changes in value of assets, whether realized or not, would be included in the accretion concept of income. An individual who sells a stock at the end of the year for \$100 more than the purchase price at the beginning of the year and an individual who holds a parcel of land that increases in value by \$100 during the same time interval both experience the same increase in net worth.

However, unrealized asset value changes are often difficult to determine, especially if an asset has unique characteristics and has not been exchanged recently on an open market. Further, there is a question as to what is meant by the value of an asset for which the market is very thin and whether changes in the value of such assets should be viewed in the same way as an equal dollar flow of labor, interest, or dividend income. For example, if the value of an individual's house rises, he is unlikely to find it convenient to realize the gain by selling it immediately. Any tax obligation, however, must ordinarily be paid in cash.

Similar questions arise with respect to the treatment of increases in the present value of a person's potential income from selling his human services in the labor market. It is not practical to measure either the increase in an individual's wealth from a rise in the demand for his labor or the depreciation of the present value of future labor earnings with age. Present law makes no attempt to recognize such value changes nor would they be captured in the comprehensive income tax proposal presented in chapter 3.

Under a consumption tax, unrealized changes in asset value would not need to be measured because consumption from such assets does not occur unless either cash flow is generated by the asset or the asset is converted into a monetary value by sale.

Finally, the problem of income averaging can be minimized with techniques of cash flow management. Averaging is desirable under an income tax because, with a progressive rate structure, an individual with an uneven income stream will have a higher tax base than an individual with the same average income in equal annual installments. Equity requires that two individuals pay the same tax when they have the same lifetime endowment, regardless of the regularity of the pattern in which earnings are received (or expended).

The consumption tax may be viewed as a tax in the initial time period on the present value of an individual's lifetime consumption expenditures. Deferral of consumption by saving at positive interest rates raises total lifetime consumption but leaves unchanged the present value of both lifetime consumption and the tax base.

Although the annual cash flow measure of the consumption tax correctly measures the present value of lifetime consumption, averaging problems may arise if annual cash flow

varies from year to year. The major averaging problem results from large irregular expenditures, such as the purchase of consumer durables. As described in chapter 4, there are two alternative ways of dealing with loans and investment assets in measuring the tax base. Both methods yield the same expected present value of the tax base over time but enable an individual to alter the timing of his recorded consumption expenditures. The availability of an alternative treatment of loans and assets enables individuals to even out their recorded pattern of consumption for tax purposes and represents a simple and effective averaging device under a consumption tax.

The same type of automatic averaging cannot be introduced under an income tax because an income tax is not a tax on the present value of lifetime consumption. Under an accretion income tax, the present value of the tax base rises when consumption is deferred, if interest earnings are positive, because the income used for saving is taxed in the year it is earned and then the interest is taxed again. Thus, allowing deferral of tax liability under an income tax permits a departure from the accretion concept, lowering the present value of tax liability.

The discussion above suggests that, contrary to popular belief, a consumption-based tax might be easier to implement, using annual accounting data in an appropriate and consistent fashion, than an income-based tax.

"Standard-of-Living" or "Ability-to-Pay" Preferable on Simplicity Grounds?

The choice between an "ability-to-pay" and a "standard-of-living" approach under the consumption or income tax has significant implications for simplicity of administration. It is relatively easy to insure that the amount of a gift is counted in the tax base of either the donor or the donee. Under present law, gifts (other than charitable gifts) are not deductible from the tax base of the donor. If gifts were deductible, the donor could be required to identify the donee. A requirement that both donor and donee be taxed, as would be implied by an "ability-to-pay" approach, would introduce a great temptation to evade. Taxing both sides would require that the gift not be deductible by the donor and that it be included in the tax base of the donee. Particularly for relatively small gifts and gifts in-kind,

auditing compliance with this rule, where no evidence is provided in another person's return of having made the gift, could be a formidable problem. For much the same reason, compliance with the existing gift tax law is believed to be somewhat haphazard.

The issue of gifts in-kind is important. It is difficult to establish whether a gift has been given in these cases (e.g., loan of a car or a vacation home). Again, if the gift need only be taxed to one of the parties to the transaction, failing to report a gift simply means it is taxed to the giver and not the recipient.

Gifts in-kind are significant in another sense. Gifts and bequests can be considered a minor matter to most people only if the terms are taken to refer to transfers of cash and valuable property. If account were taken of the transfers within families that take the form of supporting children until their adulthood, often including large educational outlays, inheritance would certainly be seen to constitute a large fraction of the true wealth of many individuals. Any discussion of gifts and bequests should take into account that the parent who pays for his child's college education makes a gift no less than the parent who makes a gift of the family farm or of cash, even though this equivalence is not recognized in present tax law.

Where large gifts of cash and property are involved, it seems likely that enforcement of a double tax on transfers will be less costly than when gifts are small. This has proved to be the case under current law.

#### EFFICIENCY ISSUES IN A CHOICE BETWEEN AN INCOME AND A CONSUMPTION BASE

In public discussions, the efficiency of a tax system is often viewed as depending on its cost of administration and the degree of taxpayer compliance. While these features are important, one other important characteristic defines the efficiency of a tax system: As a general principle, the tax system should minimize the extent to which individuals alter their economic behavior so as to avoid paying tax. In other words, it is usually undesirable for taxes to influence individuals' economic decisions in the private sector. There may, of course, be exceptions where tax policies are used deliberately to either encourage or discourage certain types of activities (for example, tax incentives for installation of pollution equipment or high excise taxes on consumption of liquor and tobacco).

Both an ideal consumption tax and an ideal income tax, though neutral among commodities purchased and produced, do have important incentive effects that are unintended by-products of the need to raise revenue. Specifically, individuals can reduce their tax liability under either tax to the extent it is possible to conduct economic activities outside of the marketplace. For example, if an individual pays a mechanic to repair his automobile, the labor charge will be entered into the measurement of consumption or income and will be taxed under either type of tax. On the other hand, if the individual repairs his own automobile, the labor cost will not be accompanied by a measurable transaction and will not be subject to tax. Phrased more generally, both an income and a consumption tax distort the choice between labor and leisure, where leisure is defined to include all activities, both recreational and productive, that are conducted outside the process of market exchange.

While both consumption and income taxes distort the choice between market and nonmarket activities, only an income tax distorts the choice between present and future consumption.

Under an income tax, the before-tax rate of return on investments exceeds the after-tax interest rate received by those who save to finance them. The existence of a positive market interest rate reflects the fact that society, by sacrificing a dollar's worth of consumption today and allocating the dollar's worth of resources to the production of capital goods, can increase output and consumption by more than one dollar next year. Under an income tax, the potential increase in output tomorrow to be gained by sacrificing a dollar's worth of output today exceeds the percentage return to an individual, in increased future consumption, to be derived from saving. In effect, the resources available to an individual for future consumption are double-taxed; first, when they are earned as current income and second, when interest is earned on savings. The present value of an individual's tax burden may be reduced by shifting consumption from future periods to the present.

A consumption tax, on the other hand, is neutral with respect to the choice to consume in different periods because current saving is exempted from the base. The expected present value of taxes paid is not affected by the time pattern of consumption. A switch from an income tax to an equal-yield consumption tax would thus tend to increase the fraction of national output saved and invested, and thereby raise future output and consumption.

The fact that a tax is neutral with respect to the savings-consumption decision is not, of course, decisive in its favor even on efficiency grounds. No taxes are neutral with respect to all choices. Thus, for example, it has already been pointed out that neither the income nor the consumption tax is neutral in the labor/leisure choice; that is, both reduce the incentive to work in the marketplace. Economic theorists have developed measures of the amount of damage done by nonneutrality in various forms. Although it is not possible on the basis of such research to make a definite case for one tax base over the other based on efficiency, when reasonable guesses are made about the way people react to various taxes it appears that the efficiency loss resulting from a consumption tax would be considerably smaller than that from an equal yield income tax.

The possible efficiency gains that would result from adopting a consumption base tax system relate closely to the frequently expressed concern about a deficient rate of capital formation in the United States. Switching from an income to a consumption base tax would remove a distortion that discourages capital formation by U.S. citizens, leading to a higher U.S. growth rate in the short run, and a permanently higher capital/output ratio in the long run.

#### SUMMING UP

The previous discussions have attempted to provide a systematic approach to the concept of income as composed of certain uses of resources by individuals. The current income tax law lacks such a unifying concept. Indeed, as has been suggested here, income as implicitly defined in current law deviates from a consistent definition of accretion income especially in that it excludes a major part of income used for savings (often in the form of accruing rights to future benefits). Eliminating savings from the tax base changes an income tax to a tax on consumption.

This chapter has considered whether there is any sound reason for considering substitution of a consumption base for the present makeshift and incomplete income base. It has been suggested that there is much to be said for this on grounds of equity; such a base would not have the drawback, characteristic of an income tax, of favoring those who consume early rather than late in life, and of taxing more heavily those whose earnings occur early rather than late in life. The argument has been made that the choice is not

between a tax favoring the rich (who save) and the poor (who do not), as some misconceive the consumption tax, and a tax favoring the poor over the former rich by the use of progressive rates, as some view the income tax. The choice is between an income tax that, at each level of endowment, favors early consumers and late earners over late consumers and early earners and a consumption tax that is neutral between these two types of individuals. The relative burdens of rich and poor are determined by the degree of progressivity of the tax. Either tax is amenable to any degree of progressivity of rates.

A distinction has been drawn between a tax based on the uses of resources for the taxpayer's own benefit and one based on these uses plus the resources he gives away to others. The shorthand term adopted for the former is the "standard-of-living" approach to assigning tax burdens; for the latter, it is the "ability-to-pay" approach. It has been suggested that either a consumption or an income tax could be designed to fit either concept. Examination of current practice suggests that the basic tax -- the present income tax -- is, broadly speaking, of the "standard-of-living" type. An "ability-to-pay" element is introduced by special taxes on gifts and estates.

The next two chapters consider two different approaches to reform of the tax system. Chapter 3 contains a plan for a comprehensive income tax, and chapter 4 contains a plan for a very different tax, called a cash flow tax, which is essentially equivalent to a consumption tax. In both cases, a "standard-of-living" approach is adopted, under the assumption that a transfer tax of some sort, perhaps the existing estate and gift tax, would continue to be desirable as a complement.